**toxigenic Food poisoning**

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| Organism | | Microbiology | Type of food | exotoxins | Incubatory period | Clinically |
| ***Staph. aureus*** | | Facultative anaerobic Gram positive cocci in clusters | Carbohydrate and protein rich diet as cake, milk …  ………  …………..  (bacteria contaminate food from hands of food handlers Then grow producing its toxin) | Enterotoxins in the food heat stable   * resist pepsin * types (A→E) & G & J * Stimulate GIT nerves * B & C super Ag → toxic shock syndrome | 1 – 6 hours | Self-limited   * nausea * vomiting * abdominal pain * diarrhea |
| ***Bacillus cereus*** | Emetic type | Aerobic spore forming Gram positive bacilli | Reheated rice and cereals as corn | Heat labile enterotoxin | 1—6 hours | Nausea  Vomiting |
| Diarrheal type | Meat | Heat stable enterotoxin → stimulate adenyl cyclase → ↑cAMP | >6 hours  (8—16 hours ) | Watery Diarrhea |
| ***Clostridium perfrengenes*** | | Anaerobic spore forming Gram positive bacilli | Meat & beef meat and its product | Enterotoxins  Heat labile  Inhibit glucose transpoters and damage the mucosa | >6 hours  (8—16 hours ) | Watery diarrhea |
| ***Clostridium botulinum*** | Food botulism | Canned food  Salty fish | Neurotoxins  Heat labile  Act on cranial nerves at motor end plates preventing release of acetyl choline causing flaccid paralysis in head and neck | 18—24 hours | Diplopia, dysphagia,  Dysphonia  Dyspnea |
| Infant botulism  (common) | Honey | As above |  | Floppy infant |
| Aspergillus spp. | | Filamentous fungi or molds | Badly stored grains and peanuts | Aflatoxin |  | liver necrosis, hepato-carcinogen |
| Ochratoxin |  | nephrotoxic, carcinogen and immunosuppressive. |
| *Claviceps purpurea* | | Ergot alkaloids |  | vasoconstriction and endothelial cell damage → gangrene, convulsions & abortions. |
| Fusarium spp. | | Trichothecene |  | vomiting, diarrhea, hypotension, mental dysfunction, bleeding and death |